Figure 1

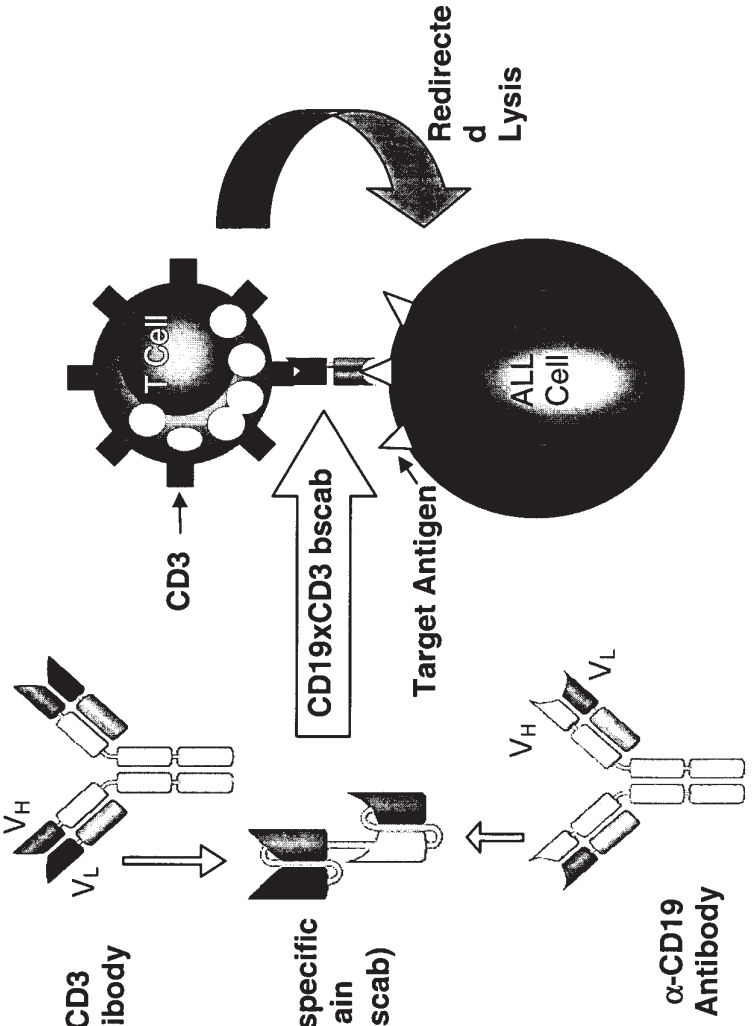
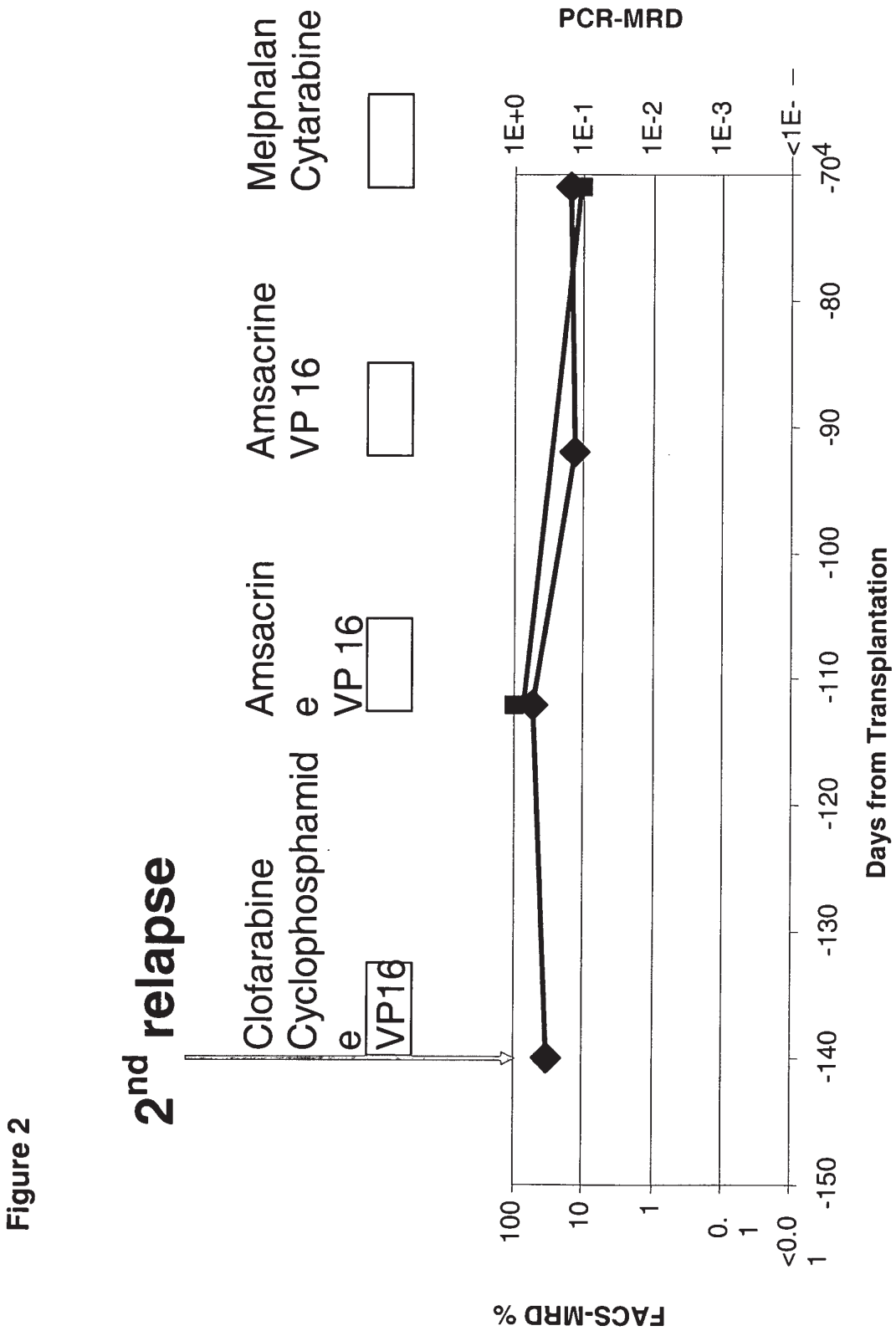

Redirected Lysis
T Cell
ALL Cell
CD3
CD19xCD3 bscab
Target Antigen
V_H
V_L
V_H
V_L
α-CD3 Antibody
CD19xCD3 Bispecific Single-chain Antibody (bscab)
α-CD19 Antibody

Figure 2


2nd relapse
Clofarabine
Cyclophosphamide
VP16
Amsacrine
VP 16
Amsacrine
VP 16
Melphalan
Cytarabine
PCR-MRD
1E+0
1E-1
1E-2
1E-3
<1E-4
-70
-80
-90
-100
-110
-120
-130
-140
-150
Days from Transplantation
FACS-MRD %
100
10
1
0.1
<0.01

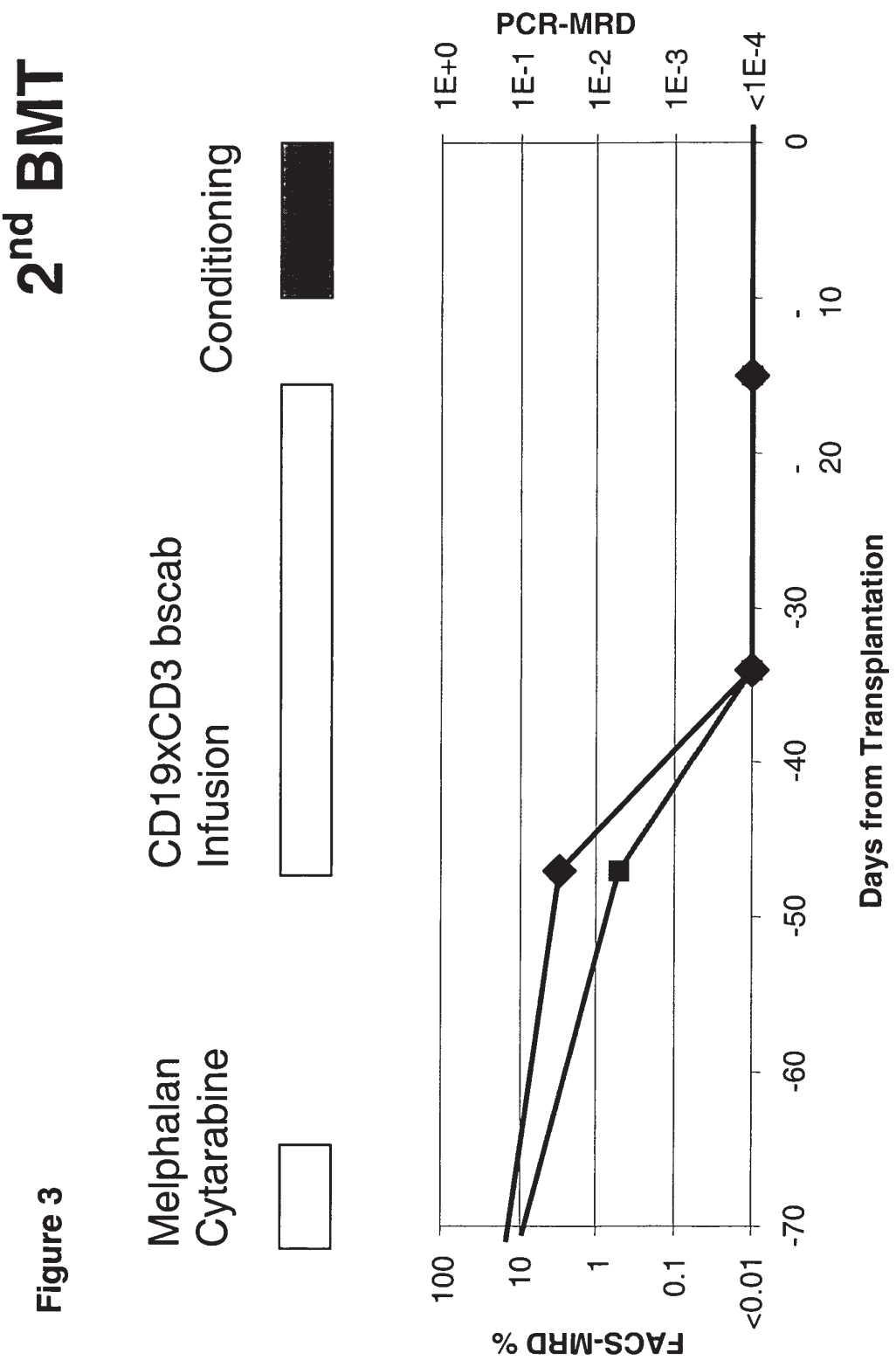

2nd BMT
Melphalan
Cytarabine
CD19xCD3 bscab
Infusion
Conditioning
PCR-MRD
1E+0
1E-1
1E-2
1E-3
<1E-4
FACS-MRD %
100
10
1
0.1
<0.01
0
-
10
-
20
-30
-40
-50
-60
-70
Days from Transplantation

Figure 3

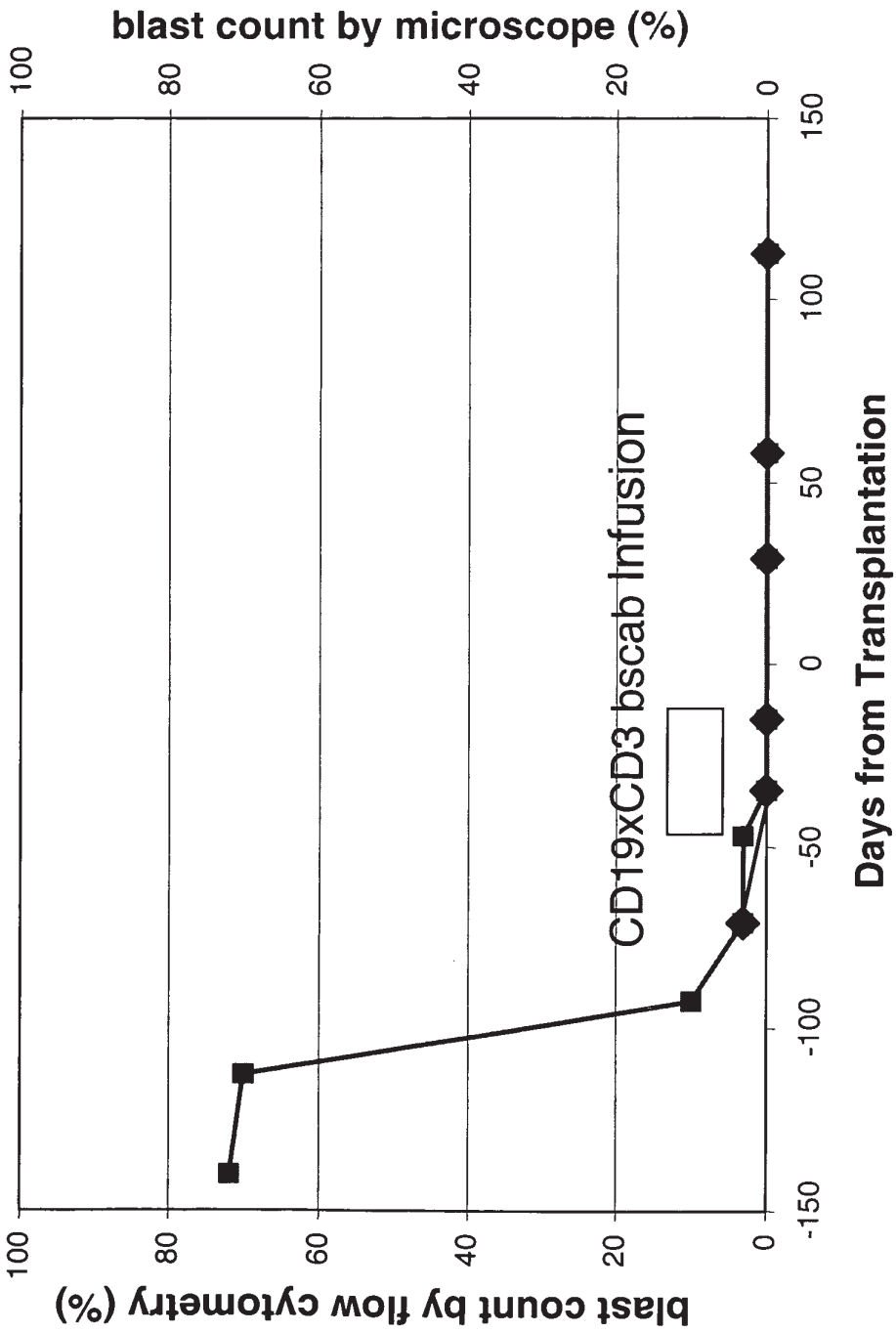

blast count by microscope (%)
100
80
60
40
20
0
150
100
50
0
-50
-100
-150
Days from Transplantation
CD19xCD3 bscab Infusion
blast count by flow cytometry (%)

Figure 4

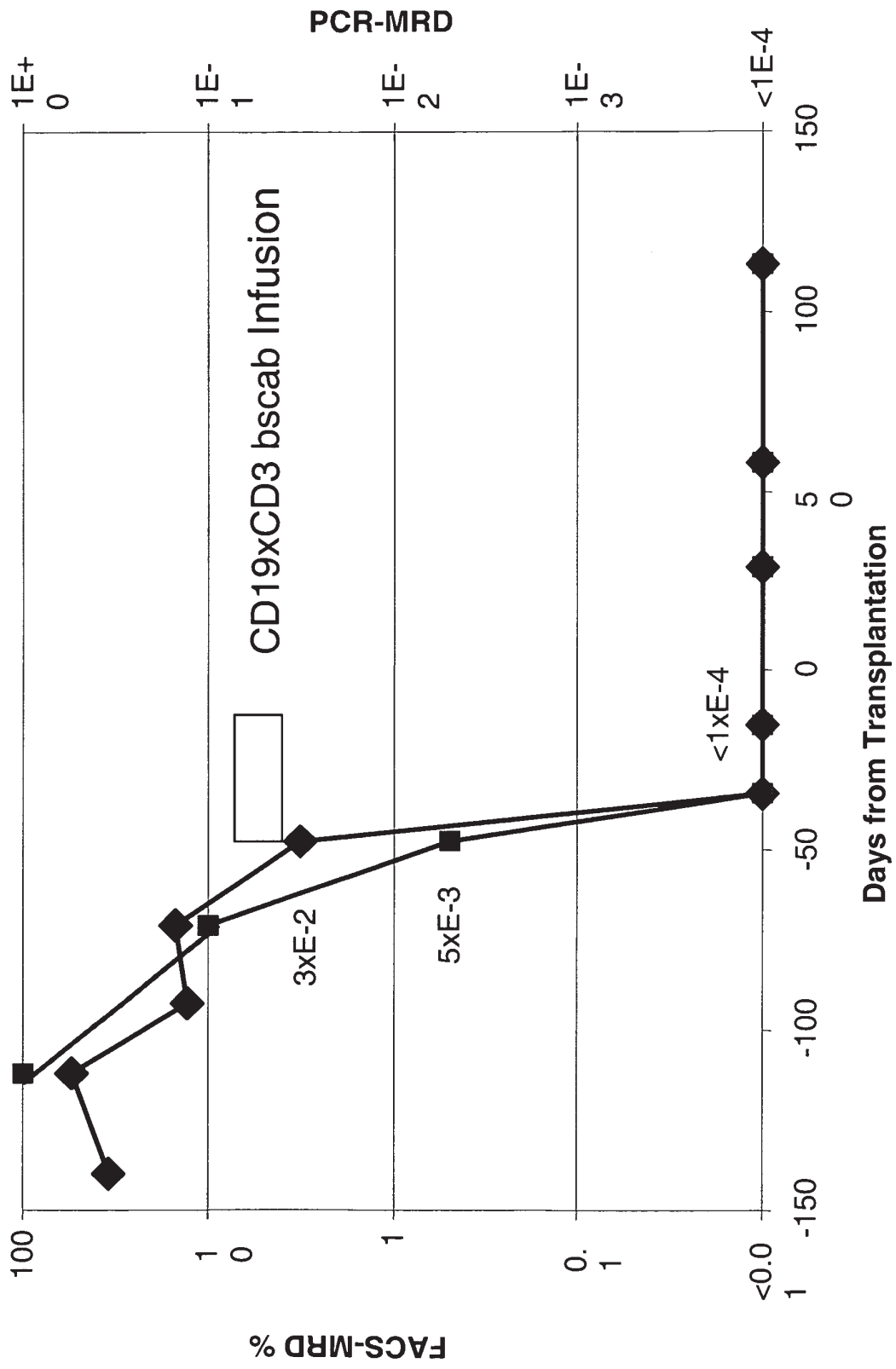

PCR-MRD
1E+0
1E-1
1E-2
1E-3
<1E-4
CD19xCD3 bscab Infusion
3xE-2
5xE-3
<1xE-4
FACS-MRD %
100
10
1
0.1
<0.01
150
100
50
0
-50
-100
-150
Days from Transplantation

Figure 5